

REMARKS

Claims 51-80 are pending in the above-captioned patent application after this amendment. Claims 51-77 have been rejected. The Applicant respectfully traverses the rejection of claims 51-77. The Applicant has amended claims 66-67 and 75-76 to correct obvious clerical errors, and has added new claims 78-80, all for the purpose of expediting the patent application process in a manner consistent with the goals of the Patent Office pursuant to 65 Fed. Reg. 54603 (September 8, 2000).

No new matter is believed to have been added by this amendment. Consideration of the pending application is respectfully requested.

Rejections Under 35 U.S.C. § 103

Claims 51-77 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakazawa et al. (JP 10-69763) in view of Wernick (Magnetic Materials, Bulk). The Applicant respectfully traverses the rejection of claims 51-77 on the grounds that the combination of cited references does not teach or suggest the features of the rejected claims, and because there is no motivation to combine these references in the manner suggested by the Patent Office.

First, the Patent Office states in its rejection that "Nakazawa depicts and discloses shielding in a direction substantially perpendicular to the disk surface to at least partially shield the storage disk from an external magnetic field." However, this statement is inaccurate based on the computer translation provided by the Patent Office, which repeatedly indicates that Nakazawa et al. is specifically directed toward electromagnetic shielding for an optical disk player, which is distinct from shielding for external magnetic fields. (See, for example, paragraphs 0005, 0006, 0011, 0012, 0013, 0015, 0016, 0017, 0018 and 0020). Electromagnetic fields are generated from electronic equipment such as radio and TV transmitters, computers, cell phones, or other electronic circuits. Electromagnetic fields are characterized by higher frequencies such as those in the radio frequency band, i.e. 9,000 Hz up to thousands of gigahertz (GHz), and relatively short wavelengths (on the order of centimeters up to tens of kilometers).

In contrast, magnetic fields are produced by sources such as permanent

magnets, speakers, transformers, solenoids, motors, etc., and are characterized by lower frequencies (i.e. 50-60 Hz, but not more than 300 Hz) and very long wavelengths (on the order of hundreds or thousands of kilometers, for example). Thus, the frequencies of electromagnetic fields are from at least 2 - 10 orders of magnitude greater than the frequencies of magnetic fields. As a consequence, shielding methods for these distinct types of fields are different. In short, Nakazawa does not teach or suggest shielding a storage disk from external magnetic fields.

Second, Nakazawa et al. provides that an electric conduction paste, foils or fibers can be applied to the entire surface of the outer frame 1 of the optical disk player and the covering of the optical pickup 4. (Paragraph 0012). Stated another way, Nakazawa et al. teaches adding a layer of electromagnetic shielding material onto the entire, already-existing housing. Stated in still another way, Nakazawa et al. teaches using a non-homogeneous housing to enclose the optical disk player.

Wernick provides various properties of certain iron and iron alloy materials. Thus, even assuming there was a motivation to combine the housing shield of Nakazawa et al. with any of the materials set forth in Wernick, the combination would yield a housing for an optical disk player, wherein the housing includes a surface layer of conduction paste, foils or fibers. In this scenario, the conduction paste, foil or fibers that would be applied may consist of one of the materials described in Wernick, but they would be positioned on the entire surface of the housing, and would not be homogeneously formed with the housing itself.

Thus, the cited combination of references does not teach or suggest a shield that has a thickness that is substantially similar to the thickness of the housing, because it is only a surface layer added to an existing housing. Further, Nakazawa et al. does not teach or suggest that the shield portion is homogeneously formed with the drive housing throughout the thickness of the drive housing, because the shield would be applied on top of the already existing housing. Moreover, Nakazawa et al. does not teach or suggest selectively positioning the shield so that certain areas of the housing use the shield, while other areas of the housing do not use the shield, because Nakazawa et al. teaches that the entire housing is covered with this surface layer.

Next, there is no motivation to combine the cited references in the manner

suggested by the Patent Office. Nakazawa et al. does not teach or suggest that specific materials should be used which can attain any specific level of attenuation of field. More specifically, Nakazawa et al. does not teach or suggest a drive housing having a shield portion with a permeability that achieves an attenuation of field of 25 dB in a perpendicular direction relative to the disk. In fact, Nakazawa et al. does not discuss attenuation of field in any capacity. Thus, because there is no suggestion in Nakazawa et al. that any specific attenuation (or any attenuation) of field is necessary, one skilled in the art would not be motivated to review Wernick to seek out a specific material that provides a specific attenuation of field.

Furthermore, although Wernick does provide permeability values for various materials, nevertheless, Wernick does not appear to correlate these permeability values to attenuation of field values. Thus, even if one reading Nakazawa et al. were motivated to find a material to provide a specific attenuation of field, Wernick does not provide this information.

Additionally, the “references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention ...” *Hodosh v. Block Drug Co., Inc.* 786 F.2d 1136, 1143, n. 5, 229 USPQ 182, 187, n. 5 (Fed. Cir. 1986). The Federal Circuit has stated, “[i]t is difficult but necessary that the decisionmaker forget what he or she has been taught ... about the claimed invention and cast the mind back to the time the invention was made (often as here many years), to occupy the mind of one skilled in the art who is presented only with the references, and who is normally guided by the then-accepted wisdom in the art.” *W.L. Gore & Associates, Inc. v. Garlock, Inc.* 721 F.2d 1540, 220 USPQ 303, 313 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984).

In the present case, there is nothing stated in Nakazawa et al. providing motivation to look to another reference (such as Wernick) to find a material having a specific attenuation of field for an external magnetic field. Consequently, the motivation to combine the housing in Nakazawa et al. with the specific materials provided in Wernick can be found only in the teachings of the present application. This constitutes impermissible hindsight.

In contrast to the cited references, claim 51 is directed toward a disk drive that requires “a storage disk having a substantially planar disk surface; and a drive housing

that retains the storage disk, the drive housing having a housing thickness that is measured in a first direction, the drive housing including a shield portion having a shield thickness measured in the first direction that is substantially similar to the housing thickness, the shield portion being formed from a material having a relative permeability that provides an attenuation of field of at least approximately 25 dB in a direction substantially perpendicular to the disk surface to at least partially shield the storage disk from an external magnetic field.” These features are not taught or suggested by the cited combination of references. Therefore, claim 51 is believed to be allowable. Because claims 52-59 and new claim 78 depend directly or indirectly from claim 51, they are also believed to be allowable.

Further, claim 60 requires “a storage disk; and a drive housing that retains the storage disk, the drive housing having a housing thickness, the drive housing including a shield portion that is homogeneously formed with the drive housing substantially through the housing thickness, the shield portion being formed from a material having a relative permeability that provides an attenuation of field of at least approximately 25 dB in a direction substantially perpendicular to the storage disk to at least partially shield the storage disk from an external magnetic field.” These features are not taught or suggested by the cited combination of references. Therefore, claim 60 is believed to be allowable. Because claims 61-68 and new claim 79 depend directly or indirectly from claim 60, they are also believed to be allowable.

Claim 69 is directed toward a disk drive that requires “a storage disk; and a drive housing defining a housing interior that retains the storage disk, the drive housing having an exterior surface and an interior surface, the drive housing including a shield portion that is selectively positioned so that at least part of the exterior surface is devoid of the shield portion, the shield portion being formed from a material having a relative permeability that provides an attenuation of field of at least approximately 25 dB in a direction substantially perpendicular to the storage disk to at least partially shield the storage disk from an external magnetic field.” These features are not taught or suggested by the cited combination of references. Therefore, claim 69 is considered to be allowable. Because claims 70-77 and new claim 80 depend directly or indirectly from claim 69, they are also believed to be allowable.

New Claims

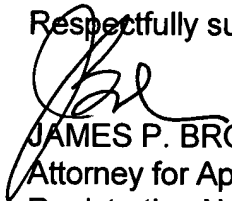
New dependent claims 78-80 have been added by this amendment. New claims 78-80 are of a slightly different scope than the previously pending claims. However, as provided above, in view of the cited references, claims 78-80 are believed to be patentable.

Conclusion

In conclusion, Applicant respectfully asserts that claims 51-80 are patentable for the reasons set forth above, and that the application is now in a condition for allowance. Accordingly, an early notice of allowance is respectfully requested. The Examiner is requested to call the undersigned at 858-487-4077 for any reason that would advance the instant application to issue.

Dated this 14th day of December, 2005.

Respectfully submitted,



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